Christopher Siefert

Curriculum Vitæ

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Research Interests

Linear Algebra, Krylov Methods, Preconditioners, KKT Systems, Algebraic Multigrid, Reduced Order Modeling, Stochastic Programming, Simulation, Optimization and Spatial Statistics.

Education

2000–2006	University of Illinois at Urbana-Champaign Ph.D. in Computer Science with Computational Science and Engineering Option (GPA 3.93/4.0). Advisor: Eric de Sturler.
1996–2000	College of William and Mary B.S. in Computer Science and Mathematics, May 2000. Highest Honors in Computer Science (GPA 3.95/4.0).

Employment

2006–present	Limited Term Technical Staff, Computational Mathematics and Algoriths Group, Sandia National Laboratories.
2005–2006	Research Assistant, Department of Computer Science (UIUC).
2003–2005	Research Assistant, Center for Simulation of Advanced Rockets (UIUC).
2000–2003	National Science Foundation Graduate Fellow, Department of Computer Science (UIUC).
Summer 2001	Summer Research Intern, Computational Sciences and Mathematical Research (Sandia Livermore National Laboratory).
Summer 2000	Summer Research Student, Department of Computer Science (College of William and Mary) and Computational Sciences and Mathematical Research (Sandia Livermore National Laboratory).
1999–2000	Head Grader, Department of Computer Science (College of William and Mary).
Summer 1999	Summer Research Student, Department of Computer Science (College of William and Mary).
1998–1999	Grader, Department of Computer Science (College of William and Mary).

Awards and Honors

2000–2003	National Science Foundation Fellow.
2000	Winner of the Lord Botetourt Medal (One issued each year).
2000	Member — Phi Beta Kappa.
1996–2000	Monroe Scholar.
1999	Batten Scholar.

Publications

[1] C. Siefert and E. de Sturler. Probing Methods for Saddle-Point Problems. *Electronic Transactions in Numerical Analysis (ETNA)*, Special Volume on Saddle Point Problems: Numerical Solution and Applications, Volume 22, pp. 163–183, April 2006.

[2] C. Siefert and E. de Sturler. Preconditioners for Generalized Saddle-Point Problems. *SIAM Journal on Numerical Analysis*, Volume 44, Number 3, pp. 1275–1296, 2006.

[3] C. Siefert. Preconditioners for Generalized Saddle-Point Problems. PhD Thesis. 2006.

[4] J. Liesen, E. de Sturler, A. Sheffer, Y. Aydin, and C. Siefert. Efficient Computation of Planar triangulations. *Proceedings of the 10th International Meshing Roundtable*, 2001.

[5] C. Siefert, V. Torczon and M.W. Trosset. Model-Assisted Pattern Search Methods for Optimizing Expensive Computer Simulations. *ASA Proceedings of the Joint Statistical Meeting*, 2002. pp. 3236-3241.

[6] C. Siefert. Model-Assisted Pattern Search. Honors Thesis. Accepted with Highest Honors. 2000.

Technical Presentations

[7] "Probing Methods for Generalized Saddle-Point Problems" — Contributed Talk for Preconditioning 2005, May 2005.

[8] "Generalized Saddle-Point Preconditioners and Approximate Schur Complements" — Invited Talk for CSE 2005, February 2005.

[9] "Preconditioners for Generalized Saddle-Point Problems" — Talk for Midwest Numerical Analysis Day, April 2004.

[10] "Preconditioners for Generalized, Stabilized Saddle-Point Problems" — Contributed Talk for Preconditioning 2003 Conference, October 2003.

[11] "Model-Assisted Pattern Search Methods for Optimizing Expensive Computer Simulations" — Topic Contributed/Invited Talk at Joint Statistics Meeting, August 2002.

[12] "MAPS: An algorithm for non-parametric Response Surface Methodology" — Poster Session at the 2000 SRCOS/ASA Conference.

[13] "Model-Assisted Pattern Search" — Talk at Sandia Livermore National Laboratory, August 2000.

[14] "Model-Assisted Pattern Search" — Invited Talk for the Board of Visitors of the College of William and Mary, Spring 2000.

Professional Societies and Service

Societies	SIAM, ACM.
Service	Computer Science Graduate Student Organization Coordinator 2002-2003.